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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/410,644	10/01/1999	RALPH SOMMERER	1018.012US1	7189

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EXAMINER

STONE, JONATHAN D

ART UNIT	PAPER NUMBER
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2178

DATE MAILED: 12/23/2002

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/410,644

Applicant(s)

SOMMERER, RALPH

Examiner

Jonathan D Stone

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 07 August 2001.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☐ Claim(s) _____ is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-18 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____
- 4) ☐ Interview Summary (PTO-413) Paper No(s). _____
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other:

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DETAILED ACTION

1. This action is responsive to communications: Application filed on 10/01/99.
2. Claims 1-18 are pending in the case. Claims 1, 7, 9, 10, 14, and 15 are independent claims.

Claim Rejections - 35 USC § 103

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. *Claims 1-18 are rejected under 35 U.S.C. 103(a) as being unpatentable over Edel et al (USPN 4891771—filing date 12/18/1987) in view of Truelson (USPN 6223191—filing date 2/12/1998).*

5. **Regarding independent claim 1**, Edel discloses balancing text on a page. He does not explicitly disclose performing the balancing without forcing any text off the page. However, Truelson teaches modifying a page's text format while prohibiting the movement of text to a new line by limiting the text a certain number of lines (col 2, ln 38-47). Truelson also teaches outputting the page (figure 1, col 2:ln 65-67, and col 4:ln 27-39). The implementation of the invention in a word processor brings with it functions such as displaying, storing, and printing a file, among others. It would have been obvious to one of ordinary skill in the art at the time of the invention to modify the invention of Edel to include the teachings of Truelson. Prohibiting the movement of words to other lines or pages would have given a user better means to choose and balance a selection while limiting it to a chosen area. Including a means of output would

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have provided the obvious benefit of enabling a user to interface with the invention, see the results, and use the invention for further modifications.

6. **Regarding claim 2-3**, the claims incorporate substantially similar subject matter as covered in the rejection of claim 1, and are rejected along the same rationale. Please reference the rejection of the claim limitation “*outputting the page.*”
7. **Regarding claim 4**, Truelson teaches formatting by considering groups of words at a time, where a group is more than a single line. It would have been obvious to one of ordinary skill in the art at the time of the invention to modify Truelson’s invention so that the groups were a pair of lines and were considered in a rolling manner. This would have given the invention the advantage of a line-by-line analysis to better the document’s readability by determining the effects of modifying the format of one line.
8. **Regarding claim 5**, Truelson teaches moving a word to a subsequent line based on the predetermined criteria of a minimum number of lines (col 2:ln 40-49). Truelson also teaches a method that creates permutations of formatted texts, weighing each permutation and pruning them based on the weighted score as well as the predetermined criteria of the minimum number of lines and letterspacing threshold (col 2: ln 50-64).
9. **Regarding claim 6**, Edel and Truelson do not explicitly teach determining if a first line is less than a second in length. However, Truelson teaches a method that determines if a first line

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has met a prespecified threshold of letterspacing (figure 4 and col 8: ln 21-38). If the limits are not exceeded, another word segment is removed from the line for placement on the subsequent line. Truelson also teaches using a data structure containing information from which one can extract a line length (col 7: ln 56-58). It would have been obvious to one of ordinary skill in the art at the time of the invention to modify Truelson's invention allow for the comparison between the data structure information of two lines. The comparison would have provided another means of determining if a word segment should be moved from a line, as were determined by the letterspacing threshold means described.

Truelson teaches creating permutations of a word group being analyzed to determine the most favorable formatting. A maximum fit algorithm is run to determine the minimum number of lines required for the word group (col 5: ln 61-67). This number is used to prune permutations that exceed the minimum amount of lines (col 2: 54-60). Thus, in this way, it is determined if a word from a first line would fit on a second line.

Truelson teaches a method of pruning formatted permutations based on predetermined criteria, such as a minimum number of lines and a letterspacing threshold, as well as a weighted score calculated from a predetermined equation (col 2: 51-60 and col 6: ln 60 – col 7: ln 13).

Truelson teaches choosing a permutation, which may contain a word moved from a first line to a second line (col 8: 25-28), that has the most desirable weighted score (col 2: 60-34).

10. **Regarding claim 7**, the claim incorporates substantially similar subject matter as claims 1, 4, and 5, and is rejected along the same rationale.

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11. **Regarding claim 8**, the claim incorporates substantially similar subject matter as claim 6, and is rejected along the same rationale.

12. **Regarding claim 9**, the claim incorporates substantially similar subject matter as claims 1, 4, and 6, and is rejected along the same rationale.

13. **Regarding claims 10, 11, 12, and 13**, the claims incorporate substantially similar subject matter as claims 1, 4, 5, and 6, respectively, and are rejected along the same rationale.

14. **Regarding claim 14**, the claim incorporates substantially similar subject matter as claim 9, and is rejected along the same rationale.

15. **Regarding claim 15**, the claim incorporates substantially similar subject matter as claim 5, and is rejected along the same rationale. Furthermore, Truelson teaches the implementation of the method in a system including a processor *102* and a memory *155*.

16. **Regarding claims 16, 17, and 18**, the claims incorporate substantially similar subject matter as claims 4, 5, and 6, and are rejected along the same rationale.

17. Prior art made of record and not relied upon is considered pertinent to disclosure.

Bartlett et al	U.S. Patent No. 4,608,664	issued 8/26/1986	filed 2/23/1983
Kumakawa	U.S. Patent No. 5,425,138	issued 6/13/1995	filed 12/17/1992
Majima	U.S. Patent No. 5,043,936	issued 8/27/1991	filed 10/26/1988
Bluethman et al	U.S. Patent No. 3,654,611	issued 4/4/1972	filed 3/2/1970

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Conclusion

18. Any inquiry concerning this communication from the examiner should be directed to Jonathan Stone, who can be reached by telephone at (703) 305-7854. Normal contact times are M-F, 8-5:30.

Upon an unsuccessful attempt to contact the examiner, the examiner's supervisor, Heather Herndon, may be reached at (703) 308-5186.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist, whose telephone number is (703) 305-3900.

19. Any response to this action should be mailed to:

Commissioner of Patents and Trademarks
Washington, D.C. 20231

Or faxed to:

(703) 746-7239 (for formal communications intended for entry)


or:

(703) 746-7238 (for after-final communications)

Hand-delivered responses should be brought to

Crystal Park II, 2121 Crystal Drive
Arlington, VA, Fourth Floor (receptionist).

Jonathan D. Stone 12/17/02


HEATHER R. HERNDON
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